We claim:

1. An isolated RNA molecule encoding protein or polypeptide of a grapevine leafroll virus (type 2).

2. The isolated RNA molecule according to claim 1, wherein the protein or polypeptide is selected from a group consisting of a polyprotein, an RNA-dependent RNA polymerase, a heat shock 70 protein, a heat shock 90 protein, a diverged coat protein, and a coat protein.

3. An isolated DNA molecule encoding a protein or polypeptide of a grapevine leafroll virus (type 2).

4. The isolated DNA molecule according to claim 3, wherein the protein or polypeptide is selected from a group consisting of a polyprotein, an RNA-dependent RNA polymerase, a heat shock 70 protein, a heat shock 90 protein, a diverged coat protein, and a coat protein.

5. An expression system comprising a DNA molecule according to claim 3 in a vector heterologous to the DNA molecule.

6. The expression system according to claim 5, wherein the protein or polypeptide is selected from a group consisting of a polyprotein, an RNA-dependent RNA polymerase, a heat shock 70 protein, a heat shock 90 protein, a diverged coat protein, and a coat protein.

7. A host cell transformed with a heterologous DNA molecule according to claim 3.

8. The host cell according to claim 7, wherein the host cell is selected from the group consisting of *Agrobacterium vitis* and *Agrobacterium tumefaciens*.

9. The host cell according to claim 7, wherein the host cell is selected from a group consisting of a grape cell, a citrus cell, a beet cell, and a tobacco cell.

10. The host cell according to claim 7, wherein the protein or polypeptide is selected from a group consisting of a polyprotein, an RNA-dependent RNA-polymerase, a heat shock 70 protein, a heat shock 90 protein, a diverged coat protein, and a coat protein.

11. A transgenic plant cultivar comprising the DNA molecule according to claim 3.

12. The transgenic plant cultivar according to claim 11, wherein the plant cultivar is selected from a group consisting of a grape plant cultivar, a citrus plant cultivar, a beet plant cultivar, and a tobacco plant cultivar.

13. The transgenic plant cultivar according to claim 11, wherein the protein or polypeptide is selected from a group consisting of a polyprotein, an RNA-dependent RNA polymerase, a heat shock 70 protein, a heat shock 90 protein, a diverged coat protein, and a coat protein.

14. A method of imparting grapevine leafroll virus resistance to a *Vitis* scion or rootstock cultivar or a *Nicotiana* cultivar comprising the steps of:

(a) transforming of cells of a *Vitis* scion or rootstock cultivar or cells of a *Nicotiana* cultivar with a DNA molecule encoding a protein or polypeptide of a grapevine leafroll virus (type 2) according to claim 3; and

(b) regenerating a *Vitis* scion or rootstock cultivar or a *Nicotiana* cultivar from said transformed cells.

15. The method according to claim 14, wherein the protein or polypeptide is selected from a group consisting of a polyprotein, an RNA-dependent RNA polymerase, a heat shock 70 protein, a heat shock 90 protein, and a coat protein.

16. The method according to claim 14, wherein the grapevine leafroll virus GLRaV-2.

17. The method according to claim 14, wherein said transforming is *Agrobacterium* mediated.

18. The method according to claim 14, wherein said transforming comprises: propelling particles at grape or tobacco plant cells under conditions effective for the particles to penetrate into the cell interior and introducing an expression vector comprising the DNA molecule into the cell interior.

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